

**“GROWING WITH THE FLOW:
WATER AND SUSTAINABLE DEVELOPMENT”
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Introduction

Thank you, Chairman Pittman. I am honored to be here today, and would especially like to commend the Texas Water Development Board on 50 years of progress. You're older than we are – EPA turned a spry 37 just yesterday, in fact. This morning, I'd like to discuss how EPA and Texas are “growing with the flow,” connecting smart water policies with sustainable development. I appreciate the opportunity to thank Texas for your leadership in successful water planning and to describe what I call the 3 R's of water sustainability: Reducing waste (and inefficiency); Re-using water; and Restoring watersheds.

As you know, states and thousands of communities across the nation are facing difficult challenges in meeting their water resource needs. A report by the Government Accountability Office in 2003 indicated that between now and 2013, 36 states are projecting water shortages. Studies of water use by the United States Geological Survey show that water withdrawn for the public supply increased by 7 percent from 1995 to 2000 -- an increase of 1 trillion gallons. The U.S. Bureau of Census projects that the national population will increase by 3% by 2010, 12% by 2020, and 30% by 2040. Here in Texas, the population is expected to more than double in the next 50+ years, from nearly 21 million in 2000 to about 46 million in 2060. Given these population increases, water systems throughout the nation will need to increase water capacity. An even more serious issue is that population is growing faster in areas where water is the scarcest.

For these reasons, EPA's Office of Water has been working closely with the Western Governors' Association and the Western States Water Council to implement the recommendations in their June 2006 Report “Water Needs and Strategies for a Sustainable Future.” Contained within the Report are many recommendations that are consistent with EPA initiatives, as well as recommendations contained in a report released by the White House Office of Science and Technology Policy titled, “A Strategy for Federal Science and Technology to Support Water Availability and Quality in the United States.”

Another challenge is that the responsibility for water, both in terms of quality and quantity, is divided among many different federal agencies as well as each of our states, tribes, and territories. You know this all too well in your efforts to build capacity for storage and reservoirs for current and future needs. In light of this shared and diverse responsibility, it is imperative that we all work collectively to meet the growing needs and demands of our limited water resources.

We can no longer look at water based on quantity or based on quality. Quality and quantity are inextricably linked, for without one, we cannot have the other.

Texas's Leadership in Water Planning

But I feel as though I'm preaching to the choir here in Texas. You have been a true leader with respect to collaboration and innovation and responsible planning. You have, after all, been working on these issues for 50+ years, and you have the additional challenge of border issues as well. You should be proud of your Water for Texas 2002 plan and your most recent efforts in 2007.

Major water management strategies, such as the Lower Colorado River Authority/San Antonio Water System's Off-Channel Reservoir Project, the Kerr-McGee Pipeline Project, and the significant increase in developing and relying upon water conservation are outstanding examples of successful implementation of locally and regionally developed water plans.

Clearly, it is important to carefully consider how the water resources of this Nation are used and how we can effectively manage them in the 21st century. The status of the Nation's water resources will continue to change with growing population, increasing urbanization, changing industrial and agricultural practices, and changing climate. Science can inform us about the status of our water resources and help us anticipate the likely effects of water policy and management practices on those resources. Authority to manage water resources is largely delegated to States, Tribes, and local municipalities. Federal agencies are committed to productive collaboration with these water resource managers. In the future, water managers will need to update policies and practices to respond to changing water resource conditions and to reflect new knowledge. We, at EPA, are committed to collaboration and integration, not confrontation and duplication. Our experiences have shown us how coordination of federal, state, tribes, and local constituents can help us to accelerate environmental progress.

And, of course, Texas wrote the book on collaboration. For its 2007 State Water Plan, the regional water planning effort included 16 planning groups and more than 350 voluntary representatives with a broad array of interests, including the 11 interest group categories specifically required by statute. They worked for more than four years to develop their regional water plans and held several hundred public meetings across the state. You are demonstrating to the nation that it's not enough to have random acts of conservation – there needs to be strategic planning and regional coordination.

Not only is Texas leading the way on collaborative planning, but this state also leads the way on innovation and financial capacity-building. Water supply is, of course, capital-intensive. And, a sustainable system requires reliable access to capital. At some point, systems may need to change the way they do business. To meet the challenges of the 21st century, water systems must consider changes in how they operate, manage, and organize.

Several states, including Texas, Connecticut, Utah, and Washington State have recognized the benefits to be gained from regional water planning approaches. The Canyon Regional Water Authority is one such example. A Joint Powers Agency composed of 11 water systems in south-central Texas, the Authority serves over 135,000 people. The partner systems are municipal and

regional systems under both public and private ownership. The partnership has helped the systems limit unsustainable aquifer withdrawals by developing alternative water sources, purchasing water in bulk, and planning for long-term sustainability. The state, through the Texas Water Development Board, was the driving force behind the development of the Canyon Regional Water Authority – mostly as an innovative response to the over-pumping of the Edwards Aquifer.

At EPA, one of our top priorities is to ensure America's water resources and water infrastructure systems are clean, safe, and sustainable. Over the past five years, EPA has consistently encouraged Sustainable Infrastructure through better management, full cost pricing, water efficiency, and the watershed approach. It is an effort to help ensure that our nation's water infrastructure is sustained in the future by fundamentally changing the way America views, values, and manages its water resources and infrastructure. It is a collaborative effort involving drinking water and wastewater utility managers, professional and trade associations, local watershed protection organizations, private sector experts in technology, engineering, and finance, and federal, state, and local officials.

The Three R's for Sustaining Water Resources

As EPA advances Sustainable Infrastructure through the tools of technology, innovation, and collaboration, we see an opportunity to keep pace with our water resource needs of the future by developing a comprehensive strategy built upon several key initiatives. All of these initiatives seek to stretch our limited water resources, and, so, we must Reduce, Reuse, and Restore. The 3 R's are soundly based in science and policy, whether it is Reducing based on a Presidential Executive Order (E.O. 13423), Re-using highly treated wastewater or stormwater, or Restoring a watershed that is polluted by an abandoned mine with efforts from a volunteer, such as a Good Samaritan who had no role in creating the pollution but wants to Restore the local watershed so that the resource can be used. Not one of these initiatives by themselves, or one agency by itself, will solve all the problems. But collectively and collaboratively, as Texas has so ably demonstrated, we can have a meaningful, positive impact on our limited water resources.

Reducing Water Waste and Inefficiency

Reducing waste isn't just about pollution prevention (a key component of our Clean Water Act programs), it's about cutting water waste and inefficiency too. On average, the per capita residential water use in the U.S. is 100 gallons of water a day, and in many areas of the country this rate is even higher. Areas with higher than average per capita water consumption are often experiencing unprecedented population growth. As a result, communities across the country are facing water supply and water infrastructure challenges.

Improving water efficiency is one of the most effective ways that communities can manage their supplies. With less water moving through the system, utility operating costs will decrease. They will avoid costs for treatment chemicals, residuals disposal, and energy associated with water collection, treatment, and distribution. In addition, water efficiency can help utilities better manage capacity expansion because necessary expansions can be delayed or reduced in size. It pays to save, to cut the fat and to pass the salt. EPA is working to foster a national ethic of water efficiency, so that water is valued as a limited resource that should be used wisely.

In June 2006, right here in San Antonio, we announced WaterSense, an innovative partnership program that helps American consumers, businesses, and governments make smart water choices that save money and maintain high environmental standards without compromising performance. EPA's WaterSense program reduces water use across the country by creating an easy-to-identify label for water-efficient products that is backed by strict criteria and independent certification. WaterSense labels products that use 20 percent less water and perform as well as—or better than—conventional models. To earn the WaterSense label, products must be independently tested and certified to meet EPA's criteria for efficiency and performance.

In less than two years, WaterSense has already become a national symbol for water efficiency among utilities, plumbing manufacturers, and consumers. I am proud to congratulate the San Antonio Water System for partnering with WaterSense, as well as the City of Houston's Drinking Water Operations, Harris-Galveston's Subsidence District, Arlington Water Utilities, the Austin Water Utility, the Lower Colorado River Authority, the Cities of Carrollton and Fort Worth, the Texas Water Development Board, and the Texas Commission on Environmental Quality. There is no shortage of WaterSense in Texas, that's for sure!

Awareness of the WaterSense label is growing every day. More than 80 models of high-efficiency toilets from 12 different brands have earned the label, and WaterSense-labeled faucets should be available to consumers by next year. In addition to manufacturers, EPA is working with utilities, retailers, distributors, and the media to educate consumers on the benefits of switching to water-efficient products.

For example, toilets account for about 30 percent of the water used in the home, and Americans waste 900 billion gallons per year by flushing old, inefficient toilets. By replacing an older toilet with a WaterSense-labeled model, a family of four could reduce total indoor water use by about 16 percent. If every home replaced just one old toilet with a WaterSense-labeled High Efficiency Toilet, the water savings would be enough to supply nearly 10 million U.S. households with water for a year. That's a lot of water saved!

Savings at the tap also result in energy savings. If just one in every 10 homes in the United States were to install WaterSense-labeled faucets or aerators in their bathrooms, in aggregate, the U.S. could save 6 billion gallons of water, and more than \$50 million in the energy costs per year to supply, heat, and treat that water.

The average home retrofitted with water-efficient fixtures can save 30,000 gallons per year. If just one out of every 10 homes in the U.S. upgraded to water-efficient fixtures (including ENERGY STAR-labeled clothes washers), the U.S. could save more than 300 billion gallons and nearly \$2 billion annually. Additional savings can be expected from the program in the future as WaterSense adds new products and implements its New Homes program. This New Homes effort will combine water-efficient products, enhanced design features, and homeowner education into a single residential program.

We are also spreading the word against water waste through our Water Efficiency Leader program to recognize organizations and individuals who are working to improve water efficiency through innovative processes and technologies. In the first year of the Water Efficiency Leader

Awards, we honored someone from San Antonio in the individual category, Bill Sartor of the San Antonio Water System.

This year, I am pleased to announce for the first time publicly that the San Antonio area is also winning a 2007 Water Efficiency Leader Award in the Military category. Lackland Air Force Base is being honored for its comprehensive, base-wide water conservation measures, as well as for its purchase of recycled wastewater. This base-wide effort is led by Colonel Eric J. Wilbur and Mr. Andy Hinojosa. Water conservation measures include, for example, bathroom fixture retrofits, water efficient landscaping, and more water efficient heating and cooling systems. Recycled wastewater from the San Antonio Water System is used to irrigate the parade field, the base golf course, and cooling tower plant. Employee outreach, school curriculum, and tenant education are included in Lackland's comprehensive approach.

Lackland is leading the way and getting a jumpstart on E.O. 13423 Section 2 (c). This is the Executive Order that, starting next year, requires Federal agencies to reduce water consumption intensity, relative to the baseline of the agency's water consumption in fiscal year 2007, through life-cycle cost-effective measures by 2 percent annually through the end of fiscal year 2015 or 16 percent by the end of fiscal year 2015. The Office of Water is responsible for developing Water Efficiency Implementation Guidance for all agencies covering the three elements of compliance: baseline development, efficiency opportunity identification/implementation, and necessary reporting. Federal agencies are also encouraged to include WaterSense products and services within their implementation strategies to meet the E.O. goals.

At EPA, we continue to support a new national organization called the Alliance for Water Efficiency (AWE), which is establishing a water efficiency information clearinghouse and will expand to complement WaterSense's activities, including monitoring national plumbing and appliance standards and codes. We are collaborating with public officials and utility managers to identify strategies and tools for reducing water loss from systems.

Reusing Water

We know that the continued growth in demands being placed on limited available fresh water supplies in many areas of the country, along with tightening discharge standards will likely lead to an increased dependency upon water reuse. Areas with limited water resources such as the arid Southwest, already have well-established water reclamation and reuse programs. These will continue to grow and improve. Sustainable growth means growing with the flow. In fact, you can't grow without flow. If you grow the flow through reclamation/reuse, and recycling, you can grow and your economy can prosper. For example, over 525,000 ac. Ft/yr (nearly 470 million gallons per day) of water were recycled in California in 2003, with nearly 46 percent of that used for agricultural irrigation, and the current goal set by State legislation is for this to increase to 1 million acre feet (nearly 893 million gallons per day) by the year 2010.

The popularity of reuse has also grown in other areas such as Florida, which now has over 1.2 billion gallons per day of total reuse capacity and over 630 million gallons per day of reclaimed water actually being reused, with 50 percent of that used for landscape irrigation in public access areas, such as residences, golf courses, parks and school grounds. The WaterReuse Association has estimated the amount of water reused in the U.S. in 2004 to be about 2.6 billion gallons per

day and projected this amount would increase to about 12 billion gallons per day by 2015. As demands on existing water supplies increase (as we are seeing in cities like Atlanta and Las Vegas), we know that even more communities will become interested in making greater reuse of reclaimed water.

Restoring Watersheds

In some respects, the third “R,” Restoring watersheds, is the most important – protecting the source. EPA is approaching our water resource and infrastructure challenge by integrating watershed-based approaches into decision making at the local level so that communities can make the most informed and cost-effective infrastructure decisions that also help to ensure the overall health of the watershed.

Watershed-based approaches, such as source water protection, water quality trading, and watershed permitting, in conjunction with traditional “hard infrastructure” approaches, can help reduce overall infrastructure costs and connect the many different actions within a watershed or sewershed, so ratepayers, taxpayers get the biggest bang for their buck.

EPA is advancing the President’s vision of “Cooperative Conservation” through grassroots, community-driven actions to protect local watersheds and waterbodies of natural significance. Last December, we convened a group of drinking water, wastewater, and stormwater utility managers to discuss watershed approaches to utility management. Building off the success of that effort, EPA has asked the National Advisory Council on Environmental Policy and Technology to provide recommendations on how to advance the watershed approach. We received initial recommendations from the group in July, and the group is currently engaged in the second phase of the project. Stay tuned.

Other Activities

We see stormwater as one of the most promising re-use opportunities. Our vision is to work with communities, companies, and citizens to view stormwater as a water resource, not simply a waste product. We’re putting technology and innovation to work in our stormwater permitting program and our new “Green Infrastructure” strategy. Beneficial re-use of stormwater, whether on a watershed scale or through individual rain gardens and rain barrels, can help to conserve our water resources.

EPA is also working to carry out a research program on infrastructure that is focused on the “underground and out of sight” network of drinking water distribution and wastewater collection pipes. The initial plan primarily identifies research, demonstration, and technology transfer activities for wastewater collection systems and drinking water distribution systems.

And while our WaterSense program is focused on more efficient water use by end users, we are also working to identify effective leak detection strategies that public water systems can use to minimize leakage in the distribution systems. Water efficiency strategies that incorporate water-saving technology along with innovative management practices to use less water can be implemented and still allow a water system to deliver an unchanged or improved level of service to consumers. “Acceptable” industry standards for water loss (non-revenue water) are on the order of 15-20%. However, in many utilities, water loss through deteriorated distribution pipes

can exceed 60%. EPA is working with stakeholders to identify and promote tools and resources for public water systems to cut water waste through activities such as universal metering, conducting water audits and implementing leak detection and repair programs.

EPA's State Revolving Fund programs can help states meet the challenges posed by infrastructure construction and rehabilitation. Total assets of these two successful programs exceed \$75 billion and are expected to grow in the future. Thank you Texas for being a leader on these programs.

EPA is also proposing a new tool – Water Enterprise Bonds – to accelerate and increase investment in the nation's water infrastructure. These will be private activity bonds for public-purpose drinking water and wastewater facilities. Providing expanded access to private activity bonds for communities will allow them to finance, build, and manage water facilities using public-private partnerships that deliver the best mix of technology, construction, and operations with the appropriate transfer of risk to their private sector partners. This proposal would also require state or local governments that use the bonds to implement full-cost pricing for services within five years. If enacted, this initiative would lead to a more robust market offering of new solutions to our water infrastructure investment challenges.

Climate Change

As we continue to carry out activities under our Sustainable Infrastructure strategy, EPA and its partners are learning more about the impacts of climate change, and we are doing more to confront the serious challenges it poses for our water resources. Increasingly, we understand climate change can have impacts on water infrastructure and watersheds that will affect our actions under the Clean Water Act, Safe Drinking Water Act, and various ocean and coastal laws.

While some uncertainty remains on the scope, timing and potential regional impacts of climate change-related effects, EPA and its partners are taking prudent steps now to assess emerging information, evaluate potential impacts of climate change on water programs, and identify appropriate response actions. The National Water Program recently established an intra-agency Climate Change Workgroup, made up of senior managers from EPA headquarters and regional water offices. The Water Program Climate Change Workgroup is working to improve understanding of climate change impacts on water resources and is finalizing a Climate Change Strategy for the National Water Program.

Conclusion

As we plan for the future and the uncertainties our future holds, we will continue to listen and learn from the experiences of Texas and other states and stakeholders. I appreciate the opportunity to thank you for your leadership in regional water planning. This state provides successful example after successful example of what can happen when we tackle the 3 R's of water sustainability in a collaborative way: Reducing waste (and inefficiency); Re-using water; and Restoring watersheds.

We are counting on your continued leadership, through the fine collaboration at the local, state, tribal, regional, and national levels that you have demonstrated in the past, to tackle not just

challenges in Texas, but to also inspire others to tackle the nation's most pressing environmental challenges. I am certain that with your guidance, we will continue to create innovative and sustainable solutions.

I applaud you for your dedication and commitment to advancing and improving the health of Texas's environmental resources and wish to again say "Happy 50th Anniversary!"